

## Unit 9 Project

### Evaluate each expression.

1.  $P(12, 4)$
2.  $C(13, 6)$
3. How many ways can 11 bowling balls be arranged on the upper rack of a balling ball shelf?
4. How many different outfits can be made if you choose 1 each from 12 skirts, 8 blouses, 2 belts, and 6 pairs of shoes?
5. How many ways can the letter of the word *MOROCCO* be arranged?
6. How many different soccer teams of 11 players can be formed from 20 players?
7. Two cards are drawn in succession from a standard deck of cards without replacement. What is the probability that both cards are greater than 4 but less than 9?
8. Eleven people are going on a camping trip in three cards that hold 5, 2, and 4 passengers, respectively. How many ways is it possible to transport the people to their campsite?
9. A shipment of 10 television contains 3 defective sets. How many ways can a hospital purchase 4 of these sets and receive at least 2 defective sets?
10. The number of colored golf balls in a box is shown in the table below.

Color	Number of Golf Balls
white	5
red	3

Three golf balls are drawn from the box in succession, each being replaced in the box before the next draw is made. What is the probability that all 3 gold balls are the same color?